

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**FACT SHEET
ORDER NO. R9-2003-0394
NPDES PERMIT NO. CA0108944**

**WASTE DISCHARGE REQUIREMENTS FOR THE
CITY OF ESCONDIDO
HALE AVENUE RESOURCE RECOVERY FACILITY**

**INTERMITTENT WET WEATHER DISCHARGE
TO ESCONDIDO CREEK
SAN DIEGO COUNTY**

Agency / Facility Information

Agency name: City of Escondido

Agency Mailing Address: 201 North Broadway
Escondido, CA 92025

Facility Name and Location: Hale Avenue Resource Recovery Facility
1521 South Hale Avenue
Escondido, CA 92029-3052

Contact Person: Mr. Glen Peterson
Assistant Utilities Manager

Telephone: (760) 839-5461

1. **BACKGROUND**

- A. On September 9, 1998, this Regional Board adopted Order No. 98-10, NPDES CA0108944, *Waste Discharge Requirements for the City of Escondido Hale Avenue Resource Recovery Facility, Intermittent Wet Weather Discharge to Escondido Creek*. Order No. 98-10 established requirements for the discharge of up to 9.0 million gallons per day (MGD) of tertiary treated wastewater from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) to Escondido Creek under certain circumstances.
- B. Pursuant to Provision E.3 of Order No. 98-10, the City of Escondido (hereinafter City) was required to submit their Report of Waste Discharge 180 days prior to the September 9, 2003 expiration date. On March 13, 2003, the City submitted an NPDES permit application for the renewal of Order No. 98-10. On August 5,

2003, the application was determined to be complete. Since the discharger has submitted a complete application for renewal of the NPDES permit, Order No. 98-10 is administratively extended until the adoption of tentative Order No. R9-2003-0394 pursuant to Title 40 of the Code of Federal Regulations (CFR), Part 122.41(b) [40 CFR 122.41(b)].

- C. On November 10, 1999, this Regional Board adopted Order No. 99-72, NPDES No. CA0107981, *Waste Discharge Requirements for the City of Escondido Hale Avenue Resource Recovery Facility, Discharge to the Pacific Ocean via the San Elijo Ocean Outfall*. Order No. 99-72, which superceded Order No. 94-104, established requirements for the discharge of up to 16.5 MGD of secondary treated wastewater to the Pacific Ocean via the Escondido Land Outfall and the San Elijo Ocean Outfall.
- D. The City reported that the San Elijo Ocean Outfall (SEOO) capacity is limited by pressure restrictions on a 4,000-foot, 30-inch diameter section of the outfall (along the nearshore) which has a maximum pressure limit of 22-psi (50 feet). To protect the 30-inch diameter section from rupture, HARRF effluent is directed through a flow control station prior to discharge to the SEOO. The flow control station is equipped with an automatic valve that regulates land outfall flows to insure the design pressure of the nearshore segment is not exceeded. The City has experienced three episodes during the past several years when wastewater flows exceeded the outfall system. The City was forced to discharge secondary effluent to Escondido Creek in January 1993, March 1995, and January 1997.
- E. On June 13, 1996, this Regional Board issued, "*Cease and Desist Order No. 96-31 for the City of Escondido*," for discharging secondary effluent to Escondido Creek during periods of sustained or significant rainfall in violation of the Federal Clean Water Act. Order No. 96-31 required the City either to pursue a strategy to increase the capacity of the San Elijo Ocean Outfall or to seek authorization for discharges of treated wastewater to Escondido Creek. At the request of the City, this Regional Board issued Addendum No. 1 to CDO No. 96-31 on February 5, 2003. Addendum No. 1 to CDO No. 96-31 extended the deadline for the City to complete measures to terminate all unauthorized discharges to Escondido Creek and tributaries thereto from November 11, 2002 to June 16, 2003.
- F. Order No. R9-2003-0394 shall serve as an NPDES permit for the discharge of treated wastewater from the City's HARRF to Escondido Creek and/or its tributaries pursuant to Section 402 of the Clean Water Act and amendments thereto.

2. **FACILITY DESCRIPTION**

- A. The HARRF is located at 1521 Hale Avenue in the City of Escondido, adjacent to Escondido Creek in the northwest 1/4 of Section 29, T12S, R2W, SBBM, which

is the southeastern portion of the City of Escondido within the Escondido Hydrologic Subarea (HSA 904.62) of the Escondido Creek Hydrologic Area (HA 904.60) of the Carlsbad Hydrologic Unit (HU 904.00). The facility is upstream of the San Elijo Hydrologic Subarea (HSA 904.61), which contains San Elijo Lagoon.

- B. The City provides wastewater collection, treatment, and disposal to areas within its incorporated boundaries. The City owns the HARRF and the land it occupies, and is responsible for operating and maintaining the treatment and disposal facilities. The City also manages the distribution and off-site use of the recycled water produced by the HARRF. Recycled water use is regulated under separate waste discharge requirements.
- C. The conceptual process schematic for the HARRF describes the facility as consisting of preliminary treatment (bar screens and grit removal), primary sedimentation, secondary treatment aeration basins, secondary clarifiers, anaerobic digesters, pre-filtration chlorination, tertiary filters, UV disinfection, flow equalization basin, solids handling and dewatering facilities, chemical addition facilities, and odor control processes.
- D. The HARRF has a design capacity of 16.5 MGD of secondary treated wastewater and 9.0 MGD of tertiary recycled water. Currently, the HARRF discharges an average of 14.5 MGD of secondary effluent to the San Elijo Ocean Outfall via the Escondido Land Outfall. The tertiary recycled water facilities and distribution system are constructed but as to date have yet to go on-line.

3. **DESCRIPTION OF DISCHARGE**

The proposed discharge point from the HARRF to Escondido Creek is located at latitude 33°07'22" and longitude 117°07'26" in the City of Escondido in San Diego County. Eventually Escondido Creek flows into the San Elijo Lagoon, which then empties into the Pacific Ocean.

4. **RECEIVING WATER**

- A. The "*Water Quality Control Plan, San Diego Basin (9)*" (hereinafter Basin Plan) was adopted by this Regional Board on September 8, 1994 and subsequently approved by the State Water Resources Control Board (State Board) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board. The Basin Plan designates beneficial uses, narrative and numerical water quality objectives, and prohibitions which are applicable to the discharge regulated under this Order.
- B. The Basin Plan establishes the following existing beneficial uses for the Escondido Creek Hydrologic Subarea (HSA's 904.61 and 904.62):

- 1) Municipal and domestic supply
 - 2) Agricultural supply
 - 3) Water contact recreation
 - 4) Non-contact recreation
 - 5) Warm fresh water habitat
 - 6) Cold fresh water habitat
 - 7) Wildlife habitat
- C. The Basin Plan identifies the following beneficial uses for San Elijo Lagoon (HSA 904.61) as follows:
- 1) Water contact recreation
 - 2) Non-contact recreation
 - 3) Preservation of biological habitats of special significance
 - 4) Wildlife habitat
 - 5) Preservation of rare and endangered species
 - 6) Estuarine habitat
 - 7) Marine habitat
 - 8) Migration of aquatic organisms
 - 9) Spawning, reproduction, and/or early development
- D. The SWRCB adopted the 2002 Clean Water Act section 303(d) list of water quality limited segments at its February 4, 2003 Board Meeting. The list was approved by the United States Environmental Protection Agency (USEPA) Region 9 on July 25, 2003. The San Elijo Lagoon has been listed by this Regional Board as an impaired water body in accordance with Clean Water Act Section 303(d). The entire 330- acre lagoon is listed as impaired due to eutrophication problems associated with point and non-point source nutrient loading. In addition, 150 acres of the lagoon are listed as impaired due to excessive sedimentation. If/when Waste Load Allocations (WLA's) are calculated in accordance with Total Maximum Daily Load (TMDL) procedures, the limits contained in this or subsequent Orders will be modified accordingly.

5. **BASIS OF EFFLUENT LIMIT DETERMINATIONS**

- A. 40 CFR 133.102 establishes minimum secondary treatment requirements for TSS, CBOD, percent removal of TSS and CBOD, and pH. Percent removal requirements are incorporated in Order No. R9-2003-0394. All other requirements are more stringent than the federal secondary treatment requirements due to other limitations imposed (below).

- B. Federal priority pollutant criteria have been promulgated by the USEPA in the 1992 National Toxics Rule (NTR) 40 CFR 131.36 (amended in 1995). These criteria have been supplemented by the USEPA in 40 CFR 131.38, the California Toxics Rule (CTR), adopted in May 2000. On March 2, 2000 the State Water Resources Control Board adopted the *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Implementation Policy). The policy establishes implementation procedures for determining appropriate water quality standards and objectives. The priority pollutant criteria limitations in Order No. R9-2003-0394 have been determined using the *California Permit Writer and Training Tool* (CAPWTT) model, in accordance with the CTR and Implementation Policy, to adjust the applicable metals criteria, run a Reasonable Potential Analysis (RPA), and convert the resulting criteria into limitations. CAPWTT model entry parameters for all constituents include: acute, chronic and human health dilution ratio of 11.1, an average hardness of 400 mg/L (recommended as the default in receiving waters with a hardness greater than 400 mg/L), and quarterly effluent and ambient data collected by the discharger from November 1998 through August 2003. The results of the CAPWTT analysis indicate that nine priority pollutants have reasonable potential to cause or contribute to exceed the CTR water quality criteria. These pollutants, and their resulting effluent limitations, are listed in Discharge Specification B.1.f of Order No. R9-2003-0394. If, at a later date, effluent monitoring data for the CTR priority pollutants demonstrates a reasonable potential for other pollutants to cause or contribute to exceedance of the CTR water quality criteria, this permit may be modified or amended to include new effluent limitations. Furthermore, if at any time the discharger feels that a criterion or objective is inappropriate for these particular receiving waters, the discharger may submit evidence to the Regional Board in support of designating a site-specific objective/criteria, in accordance with Section 5.2 of the Implementation Plan.
- C. California Code of Regulations (CCR), Title 22 establishes criteria for the use, and purveyance of recycled water. Order No. R9-2003-0394 contains effluent limitations (for coliform and turbidity) in accordance with CCR Title 22.
- D. Effluent limitations derived from the Basin Plan water quality objectives were carried over from Order No. 98-10 for the protection of beneficial uses in HSA's 904.61 and 904.62.
- E. Where the previous permit contained more stringent requirements than those specified above, the requirements were carried over in accordance with anti-degradation and anti-backsliding policies.

6. **REPORTING REQUIREMENTS**

In order to simplify evaluation of compliance with the requirements, limitations were changed (from 7-day, 30-day, and 12-month averages) to weekly, monthly, and annual averages, and the methods for evaluating such compliance were specified in the monitoring and reporting program.

7. **MONITORING REQUIREMENTS**

The purpose of the monitoring program is to document the short-term and long-term effects of the discharge on water quality and the beneficial uses of the receiving waters, and to assess treatment plant performance and compliance with the NPDES permit terms and conditions. Based on the monitoring results, the RWQCB may, at its discretion, increase the monitoring requirement (e.g., increase sampling frequency) to further investigate frequent or significant detections of any constituent.

8. **RECEIVING WATER MONITORING**

The Monitoring and Reporting Program (MRP) in Order No. R9-2003-0394 was derived from Order No. 98-10, and designed for the ultimate discharge volume of 9.0 MGD.

9. **ANTIDEGRADATION ANALYSIS**

The Regional Board has taken into consideration the requirements of the State and Federal "antidegradation" policies and has determined that the subject discharge is consistent with the Antidegradation Policies for the following reasons:

- A. The terms and conditions of Order No. R9-2003-0394 require that the existing beneficial uses and water quality of Escondido Creek and/or its tributaries and San Elijo Lagoon be maintained and protected;
- B. The discharge from the HARRF to Escondido Creek and/or its tributaries in accordance with approved plans indicated in the findings is necessary to accommodate economic and social development important to the people of the communities of the San Diego region; and
- C. No surface waters covered under Order No. R9-2003-0394 have been designated as Areas of Special Biological Significance (ASBS) by the State Water Resources Control Board. The closest ASBS to the outfall point (San Elijo lagoon) is the San Diego Marine Life Refuge, which is approximately 13 miles south. The discharge to Escondido Creek is expected to have no impact on this ASBS.

10. **STORM WATER REGULATION**

- A. On November 16, 1990, the USEPA promulgated NPDES permit application requirements for stormwater discharges (40 CFR Parts 122, 123, and 124) which are

applicable to the RCWD SRWRF. On April 17, 1997 the State Water Resources Control Board (SWRCB) adopted Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated With Industrial Activities Excluding Construction Activities. Stormwater discharges from the City of Escondido's HARRF are subject to the terms and conditions of Water Quality Order No. 97-03-DWQ.

11. **PRETREATMENT**

The discharger has developed a pretreatment program pursuant to Section 307 of the Clean Water Act, Parts 35 and 403 of Title 40, Code of Federal Regulations (40 CFR 35 and 40 CFR 403), and/or Section 2233, Article 4, Subchapter 9, Chapter 3, Title 23, California Code of Regulations. The discharger's pretreatment program was approved by the United States Environmental Protection Agency (USEPA) on June 29, 1982. Pretreatment requirements are contained in the City of Escondido's NPDES permit for wastewater discharge through the San Elijo Ocean Outfall.

12. **BIOSOLIDS**

Management of all solids and biosolid is required to comply with 40 CFR Parts 257, 258, 501, and 503; CWA Part 405(d); and Title 23, CCR, Chapter 14, including all monitoring, record-keeping, and reporting requirements. Since the State of California, hence the Regional and State Boards, has not been delegated the authority by the USEPA to implement the biosolid program, enforcement of biosolid requirements of CFR Part 503 is under USEPA's jurisdiction. Once biosolid leaves the HARRF, it is subject to all applicable local, state, and federal laws and regulations. Biosolid requirements are contained in the City of Escondido's NPDES permit for wastewater discharge through the San Elijo Ocean Outfall.

13. **PROCEDURE FOR FINAL DECISION**

- A. In accordance with 40 CFR 124.10, the RWQCB must issue a public notice that an NPDES permit has been prepared and that the permit will be brought before the RWQCB at a public hearing. The public notice must be issued at least 30 days prior to the public hearing. On November 4, 2003, a public notice was emailed to the Daily Journal Corporation for publishing in the *North County Times* no later than November 7, 2003. The public notice was issued by the RWQCB regarding the preparation of NPDES Order No. R9-2003-0394, to notify the public of the RWQCB's intent to hold a public hearing on the permit at its December 10, 2003 meeting.
- B. All comments or objections received by the appropriate date will be considered in the formulation of the final NPDES permit. A public hearing is scheduled for the December 10, 2003 RWQCB meeting at the California Regional Water Quality Control Board, San Diego Region, 9174 Sky Park Court, Suite 100, San Diego.

The meeting is scheduled to begin at 9:00 A.M. Written statements may be presented at the public hearing, and all comments and objections will be considered by the RWQCB.

- C. Persons wishing to comment upon or object to the NPDES permits are advised to submit their comments in writing, to the California Regional Water Quality Control Board, San Diego Region, 9174 Sky Park Court, Suite 100, San Diego, CA 92123-4340. To ensure that written comments are provided to the Regional Board for review prior to the hearing and that the Regional Board has the opportunity to fully study and consider written material, written comments should be received in the Regional Board's office no later than 5:00 P.M. on Wednesday, November 26, 2003. The final deadline for submittal of written comments, however, is December 3, 2003.
- D. For further information regarding this NPDES permits or public hearing, contact Mr. Bryan Ott in writing at the above address or by telephone at (858) 367-5589. Copies of the applications, NPDES waste discharge requirements, and other documents (other than those that the Executive Officer maintains as confidential) are available at the RWQCB office for inspection and copying according to the following schedule (excluding holidays):

Monday and Thursday: 1:30 P.M. to 4:30 P.M.

Tuesday and Wednesday: 8:30 A.M. to 11:30 A.M., and 1:30 P.M. to 4:30 P.M.

Friday: 8:30 A.M. to 11:30 A.M.

- E. After the close of the public hearing, the RWQCB may adopt a final NPDES permits. The final permits will become effective ten (10) days after adoption by the RWQCB, unless a later date is specified by the RWQCB.
- F. RWQCB adoption of the final orders may be petitioned for review to the SWRCB. Petitions for review to the SWRCB must be filed in writing within thirty (30) days following the RWQCB adoption of the final permits, and must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, CA 95801.

14. **REFERENCES FOR THE DETERMINATION OF NPDES WASTE DISCHARGE REQUIREMENTS**

The following documents provide the necessary references for the basis of this NPDES permit:

- A. Title 40 of the Code of Federal Regulations (CFR) Part 131, *Water Quality Standards, California Toxics Rule (CTR)*.
- B. 40 CFR Part 133 (40 CFR 133), *Secondary Treatment Regulation*.
- C. *U.S. EPA NPDES Permit Writers' Course Workbook*, March 22-26, 1999.
- D. *U.S. EPA NPDES Permit Writers' Manual*, December 1996, EPA-833-B-96-003.
- E. U.S. EPA's *Whole Effluent Toxicity (WET) Control Policy*, July 1994.
- F. U.S. EPA *Region 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs*, May 31, 1996.
- G. SWRCB's *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Implementation Policy)*, March 2000.
- H. *SWRCB Implementation Policy Course Workbook*, June 2002.
- I. SWRCB's *California Permit Writer Training Tool (CAPWTT)* model software.
- J. Title 22 California Code of Regulations (CCR), *Drinking Water Standards and Water Recycling Criteria*.
- K. SWRCB's *Water Quality Permit Standards Team Final Report*, April 1999.
- L. SWRCB's *Administrative Procedures Manual*, May 1998.
- M. *The Water Quality Control Plan Report for the San Diego Basin (9) (Basin Plan)*, September 8, 1994, as amended.
- N. Complete NPDES permit application (Report of Waste Discharge) submitted by the City of Escondido on March 13, 2003 and completed on August 5, 2003, for the HARRF.
- O. This RWQCB's Order No. 98-10, *Waste Discharge Requirements for the City of Escondido, Hale Avenue Resource Recovery Facility, Intermittent Wet Weather Discharge to Escondido Creek, San Diego County*.
- P. This RWQCB's Order No. 99-72, *Waste Discharge Requirements for the City of Escondido, Hale Avenue Resource Recovery Facility, Discharge to the Pacific Ocean via the Escondido Land Outfall and the San Elijo Ocean Outfall*.

- Q. This RWQCB's *Cease and Desist Order No. 96-31 for the City of Escondido* and Addendum No. 1 to *Cease and Desist Order No. 96-31 for the City of Escondido*.